A normative anthropology of vulnerability. [Review of the book Human being at risk

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REVIEW

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A NORMATIVE ANTHROPOLOGY OF VULNERABILITY

Review of Mark Coeckelbergh, *Human Being @ Risk. Enhancement, Technology, and the Evaluation of Vulnerability Transformations*, Philosophy of Engineering and Technology Vol. 12 (Springer, 2013) xiv + 218 pp, Hbk €105.99, ISBN 978–94–007–6024–0.

The complex title of Marck Coeckelbergh's new book might mislead casual readers into thinking that 'human being at risk' is yet another doomsday contribution to the human enhancement debate, offering an argument that we should be cautious with human enhancement technologies lest we change 'human nature'. This is far from the case, as the book is not primarily about human enhancement as such, and Coeckelbergh does not take a particular stance within the human enhancement debate. Instead, the book offers a complex and ambitious programme to establish a normative anthropology of vulnerability, and the title is very carefully crafted to mirror all the keywords of the book's argument. In a nutshell, Coeckelbergh argues that vulnerability is one of the most fundamental aspects of the human condition, that humans have always been vulnerable and that technology has always played a significant role both in being vulnerable and in trying to overcome vulnerability, and that anti-vulnerability strategies always bring new vulnerabilities so that vulnerability changes instead of being diminished. An anthropology of vulnerability cannot only be descriptive but must also be normative: human enhancement technologies but also current information and communication technologies force us to ask what kinds of humans we want to be. Thus, we should evaluate vulnerability transformations by looking at the ethics, politics and aesthetics of new technologies.

In outlining his programme, Coeckelbergh draws on various strands of philosophy: phenomenology, pragmatism, existentialist philosophical anthropology (but not existential*ism* as a philosophy), philosophy of technology, and, when discussing a theory of justice, the Capability Approach (particularly Nussbaum's version[1]). His normative position is sympathetic to ethics of care or ethics of 'good', in the sense that we should strive for 'more engaged, more social, and more spiritually wholesome ways of relating to the world and to others' (133). His programme often explicitly goes against (late) modern or modernist thinking and advocates 'non-modern' approaches, which move away from rational, instrumentalist thinking and emphasise non-dualist and holistic perspectives on human beings and their relation to the world.

In this approach, the primary subject of the book is vulnerability, ie the capability to be hurt, which is related to risk, ie the possibility of being violated (43). 'Vulnerability' emphasises the perspective of the subject (the one who is vulnerable) whereas 'risk' emphasises the perspective of the object (the thing that can harm a subject). Both vulnerability and risk, however, only emerge in the relationship between subject and object: they are neither purely objective (existing 'out there', in 'reality') nor purely subjective (existing in the experience of the subject). This is why Coeckelbergh speaks of 'being-at-risk' rather than risk or vulnerability in itself: the subject and object co-constitute risks and vulnerabilities in the subject's relation to the world and to others. In contrast to modern risk thinking, which assumes that risks can be objectified and quantified and that they are distinct from the subject's risk perception, an existential-phenomenological perspective on vulnerability assumes that risks and vulnerabilities are always also experienced as well as influenced by the subject's interactions with the world. The emphasis on vulnerability as a fundamental aspect of human existence should not be seen as a pessimistic view of life: although vulnerability is the capacity to be hurt, it also 'enables us to experience pleasure, beauty, and love' (53) because vulnerability intrinsically relates to the ways in which humans are dependent on the world and on others. Without making ourselves vulnerable, we would not be able to experience beauty or love, and in that sense, existential vulnerability is a

[1] Martha Nussbaum, *Creating Capabilities: The Human Development Approach* (Belknap Press, 2011).

necessary condition for human good and human excellence (53).

Since vulnerability is thus a fundamental condition of life, humans have always been, and will always be, vulnerable. This shapes human life and society: the 'history of this vulnerability struggle is the history of what we call culture' (70). This underlines the ambition and importance of Coeckelbergh's programme: an anthropology of vulnerability is not an anthropology of some aspect of human life; it is an anthropology of how humans live in their relation to the world and to other humans. And contrary to the dominant view since Beck and Giddens that late-modern society can typically be characterised as a risk society, Coeckelbergh refreshingly argues that '*every* society is a "risk society" in the sense … that it emerged and is organised in response to risk' (74, emphasis in original). Since risks exist everywhere and always—at least as soon as humans interact with their environment—and seeing that they are 'worlded' without an option of 'de-worlding' (in Heideggerian terminology), it is illusory to control or do away with risks or human vulnerability altogether. 'The modern project of eradicating vulnerabilities, which has led to what is perhaps the most spectacular social transformation of risk and vulnerability we have witnessed in human history (modern technology and the modern state), fails again and again. New risks are being created' (78).

This is the main argument advanced in this book: vulnerability does not diminish, it only changes; Coeckelbergh even argues (although not quite convincingly—see below) that vulnerability, if anything, increases. Whatever we do to cope with vulnerability—aiming to reduce risks—only enlarges other vulnerabilities or leads to new ones. Coeckelbergh argues that four of our major anti-vulnerability strategies—spiritual technologies and religion, material technologies and financial-economic strategies, social technologies and politics, and technologies of the self and self-culture—only achieve a transformation, not a diminishing, of vulnerability (70–81). (Subsequently, he also argues that human rights can be interpreted as a response to human vulnerabilities 'in the sense that for every human right, there is a corresponding vulnerability and risk, the risk of potential violation of the right' (88)—a confusingly circular interpretation that unfortunately does not say much about how we can evaluate human rights as an anti-vulnerability strategy.) The often unforeseen or unforeseeable ways in which new vulnerabilities emerge, imply that our way of dealing with vulnerabilities should not be modernistically characterised as 'design' strategies, but rather as tending the garden in which vulnerabilities grow and wield. And evaluations of vulnerabilities should consequently also be modest: the 'ethics of vulnerability (transformations) is the ethics of the modest and cautious gardener, who respects the limits of her own powers and understands herself as part of the vulnerability ecology' (99).

The conceptualisation of vulnerability transformations is illustrated in two major technology domains. The primary one, visible in the title, is human enhancement technology. Coeckelbergh portrays the two extremes of the enhancement debate—bioconservatives and transhumanists—to argue that neither fundamentally grasps the nature of being-at-risk. Bioconservatives, in their emphasis on human 'nature', ignore the fact that there is hardly such a thing as human nature since humans are distinct in the ways in which they interact among themselves and with their environment and this interaction is continuously evolving and shifting. Thus, 'technological transformation is natural' and humans are, as Plessner already argued in 1928,[2] 'artificial by nature' (27). At the other extreme, the transhumanist ideal of using human enhancement to diminish, and ideally abolish, human suffering, including ultimately overcoming death, is intrinsically flawed. Human enhancement technologies may help to diminish suffering in some sense, but they create new and possibly greater vulnerabilities at the same time, for example by our becoming dependent on these technologies. The vision of some transhumanists that we could leave our bodies by uploading our mind somewhere (perhaps to an artificial intelligent brain reproduction) ignores the fact that humans are intrinsically *embodied* beings and that conscious human beings cannot split their minds and bodies and stay alive (130). (I am not quite convinced by the latter argument, as we can at least imagine a mind being re-embodied in other body carriers (see, for example, Dix in William Gibson's *Neuromancer*, who lives on as a plug-in). Not that this makes people invulnerable to death, as they become vulnerable in their new 'bodies' over which they may have little control (as Dix experiences), but there is no intrinsic argument against uploading your mind. Coeckelbergh's argument suffers here from not clarifying which concept of

[2] Helmuth Plessner, *Die Stufen des Organischen und der Mensch: Einleitung in die philosophischen Anthropologie* (Suhrkamp, 1981 [1928]).

identity he uses when discussing transhumanist transformations of humans.) Although Coeckelbergh does not take a stand in the human enhancement debate, he advocates a sense of precaution, based on the need to understand humans in a holistic way, as part of an existential ecology or set of (social, cultural, political and environmental) ecologies, which implies that 'uncontrolled, uncoordinated, and largely unregulated interventions' risk changing human existence in ways we do not (yet) understand (117).

While the discussion of human enhancement, as sketched by Coeckelbergh, is largely concerned with grand changes in longer-term futures, and hence speculative at best, we should not overlook the second technology domain that is already changing human vulnerability in the present and short-term future, suggested by the '@' in the title. Information and communication technologies (ICT) raise present and more urgent questions which require at least as much of a response as human enhancement technologies. Although we tend to think of cyborgs as remote science fiction characters, actual cyborgs can be found here and now, if we just visit a hospital and look at how *wired* patients are (141). We should therefore also, and particularly, look at the vulnerabilities induced by present-day e-health applications besides long-term radical human enhancements.

ICT can also be seen as an anti-vulnerability strategy, in attempts to disembody, disengage, de-socialise, virtualise and transcend human vulnerability. Again, Coeckelbergh argues that ICT transforms rather than diminishes our vulnerability. To protect ourselves, we construct electronic castles to feel safe, but castles cannot serve as a security frame because we do not stay inside and we cannot distinguish friends from intruders. We delegate the management of our 'onlife' security to others and thus '[o]ur security and vulnerability condition becomes that of a baby. We think we are living in a castle, but we are in the cradle, crying for mother Microsoft, father Facebook, aunty Apple, sister Twitter, and (big) brother Google, who *know everything* and who will *take care of us*' (138, emphasis in original). Cyborgisation can be a strategy to overcome deficiencies in human capabilities, but this also makes our bodies vulnerable to new types of threats (120).[3] In a cyber-ecology, we should think less in terms of 'security' and more in terms of 'ambient vulnerability' in holistic terms, in which we should try to improve the 'health' (or wholesomeness) of the whole of physical-biological-psychological-informational beings (139–40).

As Coeckelbergh argues, an anthropology of vulnerability cannot remain descriptive. As human enhancement technologies allow us, up to a point, to change what we are, the question of what we want to become cannot be avoided. Which vulnerability transformations do we want? This normative part of Coeckelbergh's programme is developed not substantively, but largely methodologically. In discussing the ethics and politics of human enhancement and ICT, clear positions are avoided on what could or should be done. Rather, the consequences of the concept of being-at-risk are discussed to argue why traditional, often modern-rational-objectivist, views are flawed in their understanding of what vulnerabilities are and how humans deal with them. By reframing questions in terms of existential vulnerability transformations, Coeckelbergh argues that we should look at concrete ecologies in which these transformations are taking place, which implies that we should take both a context-specific and a holistic approach.

A fundamental problem in the normative evaluation of vulnerability transformations is a classic epistemological problem in technology assessment studies. Values change over time, and technological changes may radically alter our relation to the world. How can we assess the consequences of future technologies and socio-technical transformations, while not knowing how exactly the technologies will be used and how the future users will experience and value them? This problem is not solvable, but Coeckelbergh builds on various approaches to formulate a heuristic that at least makes progress in addressing the epistemological challenge. The core of this heuristic is to do 'moral stretch exercises',[4] which exercise our imagination of future technological and moral developments. Art plays an important role here: fiction stretches our imagination and invites us to evaluate future scenarios. Coeckelbergh frequently points out the importance of fiction for a normative anthropology of vulnerability, and he illustrates this importance by using Ishiguro's *Never Let Me Go*, Houellebecq's *La possibilité d'une île*, and cyberpunk literature in his discussion of human

[3] Cf Mark N Gasson and Bert-Jaap Koops, 'Attacking Human Implants: A New Generation of Cybercrime', this issue 248-278.

[4] Günther Anders, *Die Antiquiertheit des Menschen. I: Über die Seele im Zeitalter der zweiten industriellen Revolution* (CH Beck, 1987 [1956]).

enhancement and ICT transformations. Given his emphasis on imagination and narratives, his use of fictional scenarios is relatively sparse, and I would have welcomed more examples of fiction to substantiate his argument, for example novels that show that radical-seeming human enhancement technologies need not be disruptive or detrimental to human existence.[5] It is also striking, given the capacity of images to fire our imagination, that the book does not contain any (visual) images, but perhaps this is due to a non-modern preference for the word over our modern visual culture.

Apart from moral stretch exercises, which particularly train our imagination to evaluate longer-term perspectives, we should also do experiments to acquire hands-on experience, and (paradoxically) use technology to help us bridge possible paths to knowledge of the future. This implies that, while we can pay some attention to the remote future, we should focus most of our attention on the near future, 'which we are better able to imagine and cope with in a value-emotional way' (105).

Coeckelbergh has written an important and original book, with a carefully constructed argument. He provides a rich discussion of fundamental and topical issues from a wide range of perspectives. He convincingly argues that a normative anthropology of vulnerability is needed and outlines an attractive and usable programme for such a normative anthropology. Although the style is sometimes dense (at least for non-philosophically trained readers), the text also contains many powerful statements and colourful metaphors, for example in portraying the modern hospital as a health factory or computer system in which we are tagged, connected, read, monitored, and upgraded (143), or internet users as 'slaves … producing data for large multinational companies' (135). The book is valuable for scholars in many fields, not only philosophy of technology, anthropology or ethics, but also other disciplines dealing with technology and regulation of technology.

Although the book makes the case for a theoretical approach rather than for concrete ways of dealing with current challenges related to technology and human vulnerability, it also provides valuable insights for regulators. These include wise suggestions for heuristic approaches to overcoming the epistemological problem of assessing future transformations, an emphasis on a context-sensitive and shorter-term-oriented approach to framing regulatory questions, the need for law-makers to take into account the existential dimension of human vulnerability, and the advice to look at the *ecologies* in which vulnerability transformations take place, which implies a holistic approach to being-at-risk that looks at material, psychological, emotional and informational aspects. Politics, Coeckelbergh argues, is always also biopolitics and infopolitics. And biopolitics should take note of the capability approach to understand that the 'very meaning of the capabilities changes as technologies reshape the human',[6] implying also that regulators cannot apply some fixed notion of human dignity that relies on the idea of a fixed human nature (173). Consequently, regulation of human enhancement and ICT should try to keep options open for future generations to determine how *they* want to co-shape future humans, their vulnerabilities and their world (188).

Also interesting for regulators—including technology developers who influence people's behaviour by making design choices—is the discussion of the normative aspects of the aesthetics of vulnerability (183–99): thinking about the future we want to have also implies 'that we think about how the world should *look* like' (176, emphasis in original).[7] For example, we tend to build humanoid robots, using the human as the measure of all things; but if technologies allow us to reshape the human, why should we build robots in the likeness of a particular historical form of the human? (189)

Besides praise for the ambitious and carefully constructed programme of a normative anthropology of vulnerability, some criticism is also warranted. At several points in the narrative, after having argued why other approaches are flawed and what the consequences are of the 'being-at-risk' approach for framing a certain issue, Coeckelbergh limits himself to noting *that* we should conceive of the issue in a certain way, without explaining *how* we can conceive of it in the new frame. For example, although he succeeds well in criticising the naive, instrumental notion of using ICT to diminish human vulnerabilities and in pointing out the new vulnerabilities arising from our current

[5] Cf Bert-Jaap Koops, 'A Unique Copy: The Life and Identity of Clones in Literary Fiction' in Bert-Jaap Koops *et al* (eds), *Engineering the Human* (Springer, 2013) 129.
[6] Cf Alberto Pirni and Federica Lucivero, 'The "Robotic Divide" and the Framework of Recognition: Re-Articulating the Question of Fair Access to Robotic Technologies', this issue 147-171.
[7] Cf Jason Borenstein and Yvette Pearson, 'Companion Robots and the Emotional Development of Children', this issue 172-189.

ICT practices, Coeckelbergh does not clarify what holistic thinking in terms of 'ambient vulnerability' implies for concrete choices we face in developing and regulating ICT applications. While he frequently argues that rather than asking 'big', 'philosophical' questions we should focus more on concrete, context-specific questions, he often goes on to still ask rather large and abstract questions. To be sure, Coeckelbergh positions his book at the end (too modestly) as an essay and a 'prolegomenon' to a substantive anthropology of vulnerability (205), and perhaps we should not expect more from a theory-oriented philosophical book. However, the book's emphasis on present-day and urgent problems in ICT-related vulnerability transformations raises expectations in the reader that the book does not fulfil, to learn what the being-at-risk approach actually implies for current regulatory dilemmas. Some more guidance, based on an ethics of 'good', on how to deal with ICT security, both in the context of internet usage and in e-health, would have been welcome.

Another drawback is that arguments frequently start by portraying rather extreme views in the form of ideal-type visions or arguments and subsequently argue why these ideal-types are too extreme; this is useful for articulating the core of a debate, but it tends to overlook the many positions that are possible in between extremes, and does not clarify where along the spectrum we might want to position ourselves. In his non-modern preference for holistic views, seemingly amounting almost to a *horror distinctionis*, Coeckelbergh tends to argue that something is never completely only A nor entirely only B, but always also A-and-B—but he does not always make particularly clear what this combination of A-and-B actually entails. It is fairly obvious that most distinctions are abstractions and that in real life, boundaries are hardly ever clear-cut, but without making distinctions or drawing boundaries somewhere, life (and understanding, and research) becomes pretty hard.

While these are relatively minor drawbacks, there is one major element in the overall argument where Coeckelbergh fails to convince. In his focus on vulnerability transformations, he argues that vulnerabilities do not diminish but change. Initially, the key argument is phrased 'that new technologies … and anti-vulnerability strategies … always create new risks and vulnerabilities, thus *transforming* human vulnerability rather than substantially reducing it' (5, emphasis in original). As the book develops, the argument is formulated more starkly, claiming that not only is vulnerability not reduced; if anything, it increases. For example, 'this creates new vulnerability transformations and is likely to increase vulnerability' (107, see also 79, 81, 143, 194 for similar claims). Coeckelbergh seems inconsistent in arguing, on the one hand, that vulnerability does not diminish (as it is supposed to do after an anti-vulnerability measure) but is transformed, suggesting (although not explicitly stating) that vulnerabilities change in character and cannot be well compared in magnitude, while, on the other hand, claiming that vulnerability, 'if anything', increases, and thus can be compared in magnitude to prior vulnerabilities. I do not see why vulnerabilities can sometimes increase, but never decrease.

Obviously, not all vulnerabilities and risks are commensurable, but that does not imply that all vulnerabilities are incommensurable. The pervasive suggestion that vulnerabilities tend not to diminish but to increase calls for a clarification of how (in)commensurable risks and vulnerabilities are, and how and why in certain contexts anti-vulnerability measures can increase the overall degree of vulnerability. However, nowhere does Coeckelbergh substantiate the claim that vulnerability increases. He gives many examples of vulnerabilities arising from certain anti-vulnerability measures, but he does not compare these to the original vulnerability and fails to make explicit why the increase in new vulnerabilities outweighs the reduction of old vulnerabilities.

It is clear that vulnerabilities change (it does not require a book-length argument to make that claim), and it is likely that vulnerabilities, in some contexts, increase as a result of our attempts to cope with vulnerability. But it is also likely, I would think, that vulnerabilities, in some other contexts, decrease as a result of our attempts to cope with vulnerability, and it is far from obvious that anti-vulnerability strategies as a general rule transform *and also possibly increase but do not decrease* vulnerability. To give one example, Coeckelbergh cursorily claims that 'we suffer from new *or increased* vulnerabilities as a result of the anti-vulnerability technologies we use (e.g. the risks of car travel)' (194, emphasis added), without in any way explaining what the vulnerabilities were before and after car travel and without demonstrating that car travel involves increased vulnerability. To be sure, car accidents cause grave injuries and death to many people (although, significantly, the risks involved vary greatly by country, which I assume is at least partly related to the amount and type of car-safety measures applied in different countries), but horse travel in the Middle Ages also caused grave injuries

and death to many people. And while human vulnerability increases through new vulnerabilities that did not exist before, such as car sickness, it is not at all obvious that new types of vulnerabilities increase people's overall vulnerability compared to the decrease in illness and death, for example, as a result of cars bringing patients and doctors more swiftly together. This may be a mundane example, but it is illustrative for the book's overall argument.

Over the past centuries, our life expectancy has dramatically increased; this implies that we still die, but the risk of dying has decreased. I do not know whether we lead overall healthier lives than people in the caves, in the Middle Ages, or in the mid-nineteenth century, but I would not be surprised if, over time, we turn out to have fewer or less serious illnesses, despite the fact that new illnesses keep popping up. It may well be that changes in (bodily) health and life expectancy are (more than) offset by increasing vulnerabilities in other areas, such as emotional distress, psychological illnesses or social isolation, but that is then an argument that needs to be made. I would also expect a theory of vulnerability transformations to engage in a discussion of whether vulnerabilities have different levels of importance for human existence. For example, Maslow's hierarchy of needs[8] has been criticised,[9] as it is contested where in a hierarchy certain needs should be placed, and different cultures and times prioritise needs in different ways. However, that does not imply that no hierarchy of human needs can be identified for a certain place, time and culture. An evaluation of vulnerability transformations should at least engage in a discussion of whether, for example, a reduction in food insecurity can be compared to an increase in emotional distress, or whether a lower risk of flooding as a result of building dykes can be compared to an increase in our dependency on water management technologies. This implies a discussion of whether or not the vulnerabilities at issue in vulnerability transformations are similar in nature and scope; how vulnerabilities that are sufficiently similar compare before and after anti-vulnerability measures; and how we can evaluate vulnerability transformations in case vulnerabilities are incommensurable (but potentially hierarchically different).

Despite this gap in the argument of not substantiating the claim that vulnerability, if anything, increases as a result of the ways in which we cope with vulnerability, Coeckelbergh has amply demonstrated that vulnerabilities change and that it is illusory, and unwise, to think that vulnerability can ever completely disappear from human existence. We should embrace being-at-risk as a fact of life, rather than deny or combat it as the risk managers or radical transhumanists would have it. Once we understand and appreciate what being-at-risk entails, we can begin to think about how the co-evolution of technology, society and human life shapes and transforms our vulnerabilities; about the futures that we can imagine and the human beings we want to be; and about how we can move towards those futures that we like.

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[8] Abraham H Maslow, *Motivation and Personality* (Harper, 1954).
[9] eg Mahmoud A Wahba and Lawrence G Bridwell, 'Maslow Reconsidered: A Review of Research on the Need Hierarchy Theory' (1976) 15 *Organizational Behavior and Human Performance* 212.